

REMARKS

This amendment is in response to the Office action of January 17, 2006. In the outstanding Action, the Examiner rejected claims 7 and 8 as allegedly not disclosing the starting winding. Although the applicants feel that the starting winding need not be shown in the drawings, as this is a well known element in generators, in order to expedite prosecution, the claims have been cancelled without prejudice

Claims 1-6; 9-24 and 26-29 have been rejected as unpatentable over Elton et al., U.S. Patent No. 5,035,165 in view of Gaston, U.S. Patent No. 4,494,007. The Examiner's rejection is respectfully traversed for the reasons set forth below.

A cable corresponding to the one disclosed in Elton '165 is also disclosed in WO 97/45924 referred to in the specification (page 2, line 20) of the present application. It is also noted that such a cable has been used for the stator winding in a generator in a wind-power plant as disclosed in WO 99/29025, see page 2, line 12 of the present application.

However, applicants assert that the mere existence of the teaching that such a cable exists and even that it is used in the stator winding of a wind-powered generator does not automatically lead to the conclusion that employing such a generator in a certain kind of wind-power unit would be obvious to one of ordinary skill in the art.

First of all it has to be noted that neither Elton '165 nor WO 97/45924 includes any teaching for providing such stator winding in a wind-power combination. Only WO 99/29025 teaches such a combination. However, WO 99/29025 discloses such a generator in a wind-power device having a horizontal turbine shaft. In practice such type of device has been the only type that has been commercially employed.

The present invention is directed to a wind power device having a vertical shaft. Wind-power devices with vertical turbine-shafts have such substantial drawbacks that, until the present invention they have remained in the design state or as experimental plants. In other words, such devices have not been considered a practical expedient for wind generators.

A decisive reason for wind turbines with vertical shafts not being favored is that the output cannot be controlled by simply turning the blades. They require the generator to be provided with overload control for it to be dimensioned large enough to receive the high outputs. This limitation prevents the energy available in winds of high velocity from being

exploited. This and other drawbacks has led to the belief that turbines with vertical shafts are not considered a realistic alternative.

The present invention is based on the insight that applying the novel high voltage cable in the stator winding of a vertical shaft wind-power unit would lead to a combination where the most serious of the drawbacks related to a vertical shaft wind-power unit are eliminated. This insight would normally not be obvious to a person of ordinary skill in the art, particularly because such person would have generally believed that a wind-power unit with vertical shaft represents an impasse or non practical solution to wind generation problems.

In order to arrive at the insight that such a solution is practical in a vertical shaft machine, one of ordinary skill in the art would have to first recognize the relevance of the benefits that can be gained by the electrical properties of such a high voltage cable as a stator winding; moreover the person of ordinary skill would have to identify the reasons why a vertical shaft wind-power unit normally is not an expedient that seriously can be considered. In addition, one of skill in the art would have to understand that the relevant advantages of the cable winding are of such nature that it can solve the major problems with a vertical shaft wind-power unit and thereby make such a unit technically and commercially competitive.

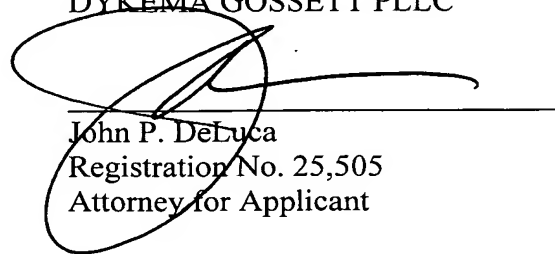
To merely state that the combination of US Gaston '007 with Elton '165 (or WO 99/29025) is obvious thus appears to be hindsight reasoning based on what is taught by the applicants, and not taking into consideration the real life or practical knowledge that vertical shaft machines are not up to the task in a wind power context.

Accordingly, the combination of Gaston with Elton '165 (or WO 99/29025) is not a question of merely combining the references. The claimed combination opens up a new possibility for using vertical shaft wind-power units in a way that radically takes away the limitations of such claimed combination and which would not have been foreseen by the person of ordinary skill. The combination indeed involves a surprising effect.

In view of the foregoing, it is respectfully requested that the Examiner reconsider his rejection of the claims, the allowance of which is earnestly solicited.

Respectfully submitted,

DYKEMA GOSSETT PLLC

A handwritten signature in black ink, appearing to read "John P. DeLuca", is written over a horizontal line. The signature is stylized with a large, sweeping loop at the end.

John P. DeLuca
Registration No. 25,505
Attorney for Applicant

DYKEMA GOSSETT PLLC
THIRD FLOOR WEST
1300 I Street, N. W.
Washington, D.C. 20005
(202) 906-8626

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